



## AC L2003

### UV-Curable, High Refractive Index Optical Material for Lens Applications

#### Features

- High Tg
- High refractive index
- Good flow properties
- High Hardness

#### Description

- UV-Curable Adhesive

#### APPLICATIONS

Optical lens applications

#### TYPICAL PROPERTIES

##### Liquid

Viscosity (cps, 25 °C)	6,500 – 8,300
Storage (°C)	15 to 25
Shelf life (20 - 25 °C)	6 months
Pot life (20 - 25 °C)	3 months

##### Cured film

Shrinkage (linear, %)	< 0.3
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Glass transition temperature (°C, DMA)	91
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Hardness – Shore D	82
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Refractive index of cured film (25°C)	
@ 486 nm	1.542
@ 589 nm	1.533
@ 656 nm	1.530

Coefficient of thermal expansion (TMA), 75 µm film	
below Tg (x10 <sup>-6</sup> ), °C <sup>-1</sup>	20
above Tg (x10 <sup>-6</sup> ), °C <sup>-1</sup>	123

Physical properties tested at 25°C, 50% RH (ASTM D638)	
Elongation (%)	14
Modulus, psi (kg/mm <sup>2</sup> )	143,000 (100)

Operating temperature (°C)	-40 to 140
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##### UV curing conditions

<u>Spot cure system – UV dose (J/cm<sup>2</sup>), air</u>	
250 – 450 nm filter	2.0 to 2.5

<u>Flood cure system – UV dose (J/cm<sup>2</sup>), air</u>	0.6 to 1.0
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\* Minimum intensity recommended for Spot lamp system: 100 mW/cm<sup>2</sup>

\*\* Intensity recommended for Flood lamp system: 49 WPcm or 125 WPI

#### SAFETY AND HANDLING

The un-cured adhesive can be cleaned from apparatus with isopropyl alcohol (IPA), methyl ethyl ketone (MEK), or commercial alcohol based cleaning solution.

Use caution in handling this material. Avoid direct skin and eye contact. Use only in well ventilated areas. Use protective clothing, **gloves and safety goggles**. Read Material Safety Data Sheet before handling.

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